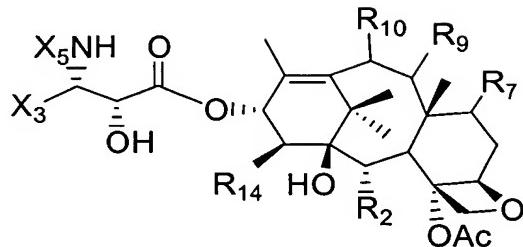


Claims

WHAT IS CLAIMED IS:

1. A taxane having the formula:



wherein

- R<sub>2</sub> is acyloxy;  
R<sub>7</sub> is hydroxy;  
R<sub>9</sub> is keto, hydroxy, or acyloxy;  
R<sub>10</sub> is acyloxyacetyloxy;  
R<sub>14</sub> is hydrido or hydroxy;  
X<sub>3</sub> is substituted or unsubstituted alkyl, alkenyl, alkynyl or heterocyclo;  
X<sub>5</sub> is -COX<sub>10</sub>, -COOX<sub>10</sub>, or -CONHX<sub>10</sub>;  
X<sub>10</sub> is hydrocarbyl, substituted hydrocarbyl, or heterocyclo; and  
Ac is acetyl.

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2. The taxane of claim 1 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

3. The taxane of claim 1 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

4. The taxane of claim 1 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

5. The taxane of claim 1 wherein R<sub>14</sub> is hydrido.

6. The taxane of claim 5 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

7. The taxane of claim 5 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

8. The taxane of claim 5 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

9. The taxane of claim 1 wherein  $R_2$  is benzyloxy.

10. The taxane of claim 9 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

11. The taxane of claim 9 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

12. The taxane of claim 9 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

13. The taxane of claim 1 wherein  $R_{14}$  is hydrido and  $R_9$  is keto.

14. The taxane of claim 13 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

15. The taxane of claim 13 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

16. The taxane of claim 13 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

17. The taxane of claim 1 wherein  $R_2$  is benzyloxy and  $R_9$  is keto.

18. The taxane of claim 17 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

19. The taxane of claim 17 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

20. The taxane of claim 17 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

21. The taxane of claim 1 wherein  $R_{14}$  is hydrido and  $R_2$  is benzyloxy.

22. The taxane of claim 21 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

23. The taxane of claim 21 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

24. The taxane of claim 21 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

25. The taxane of claim 1 wherein  $R_{14}$  is hydrido,  $R_9$  is keto, and  $R_2$  is benzyloxy.

26. The taxane of claim 25 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

27. The taxane of claim 25 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

28. The taxane of claim 25 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

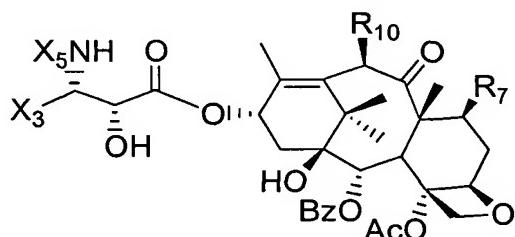
29. The taxane of claim 25 wherein  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

30. The taxane of claim 29 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, cycloalkyl or alkenyl.

31. The taxane of claim 29 wherein  $X_3$  is furyl or thienyl.

32. The taxane of claim 29 wherein  $X_3$  is cycloalkyl.

33. A taxane having the formula



R<sub>7</sub> is hydroxy;

- 5 R<sub>10</sub> is  $R_{10a}\text{COO}-$ ;  
R<sub>10a</sub> is a heterosubstituted methyl group wherein the heteroatom may be substituted to form a heterocyclo, alkoxy, alkenoxy, alkynoxy, aryloxy, hydroxy, protected hydroxy, oxy, acyloxy, nitro, amino, amido, thiol, ketal, acetal, ester or ether;
- 10 X<sub>3</sub> is substituted or unsubstituted alkyl, alkenyl, alkynyl or heterocyclo;  
X<sub>5</sub> is  $-COX_{10}$ ,  $-COOX_{10}$ , or  $-CONHX_{10}$ ; and  
X<sub>10</sub> is hydrocarbyl, substituted hydrocarbyl, or heterocyclo.

34. The taxane of claim 33 wherein  $X_3$  is furyl, thienyl, pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

35. The taxane of claim 33 wherein  $R_{10}$  is  $R_{10a}COO^-$  and  $R_{10a}$  is a heterosubstituted methyl group wherein the heteroatom may be substituted to form a alkoxy, alkenoxy, aryloxy, hydroxy, acyloxy, ester or ether.

36. The taxane of claim 33 wherein  $R_{10}$  is  $R_{10a}COO^-$  and  $R_{10a}$  is a heterosubstituted methyl group wherein the heteroatom may be substituted to form a alkoxy or aryloxy.

37. The taxane of claim 34 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

38. The taxane of claim 34 wherein  $X_3$  is furyl or thienyl.

39. The taxane of claim 38 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

40. The taxane of claim 38 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

41. The taxane of claim 34 wherein  $X_3$  is cycloalkyl.

42. The taxane of claim 41 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

43. The taxane of claim 41 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

44. The taxane of claim 34 wherein  $X_3$  is isobutenyl.

45. The taxane of claim 44 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

46. The taxane of claim 44 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

47. The taxane of claim 34 wherein  $R_{10}$  is alkoxyacetoxy or acyloxyacetoxy.

48. The taxane of claim 47 wherein  $X_3$  is furyl, thienyl, pyridyl,  $C_1 - C_8$  alkyl or  $C_2 - C_8$  alkenyl.

49. The taxane of claim 48 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

50. The taxane of claim 48 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

51. The taxane of claim 47 wherein  $X_3$  is cycloalkyl.

52. The taxane of claim 51 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

53. The taxane of claim 51 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

54. The taxane of claim 47 wherein  $X_3$  is furyl or thienyl.

55. The taxane of claim 54 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

56. The taxane of claim 54 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

57. The taxane of claim 34 wherein  $X_3$  is furyl or thienyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

58. The taxane of claim 34 wherein  $X_3$  is substituted or unsubstituted furyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

59. The taxane of claim 34 wherein  $X_3$  is substituted or unsubstituted thienyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

60. The taxane of claim 34 wherein  $X_3$  is isobut enyl, and  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

61. The taxane of claim 34 wherein  $X_3$  is alkyl, and  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

62. The taxane of claim 34 wherein  $X_3$  is furyl or thienyl,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

63. The taxane of claim 34 wherein  $X_3$  is isobut enyl or cycloalkyl,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

64. A pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

65. The pharmaceutical composition of claim 64 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl or  $C_2 - C_8$  alkynyl.

66. The pharmaceutical composition of claim 65 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

67. The pharmaceutical composition of claim 65 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

68. The pharmaceutical composition of claim 65 wherein  $X_3$  is substituted or unsubstituted furyl or thienyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

69. The pharmaceutical composition of claim 65 wherein  $X_3$  is furyl or thienyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

70. The pharmaceutical composition of claim 65 wherein  $X_3$  is alkyl or isobutenyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

71. The pharmaceutical composition of claim 65 wherein  $X_3$  is furyl or thienyl,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

72. The pharmaceutical composition of claim 65 wherein  $X_3$  is isobutenyl or alkyl,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

73. A pharmaceutical composition comprising the taxane of claim 34 and at least one pharmaceutically acceptable carrier.

74. A pharmaceutical composition comprising the taxane of claim 38 and at least one pharmaceutically acceptable carrier.

75. A composition for oral administration comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

76. The pharmaceutical composition of claim 75 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl or  $C_2 - C_8$  alkynyl.

77. The pharmaceutical composition of claim 76 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

78. The pharmaceutical composition of claim 76 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

79. The pharmaceutical composition of claim 76 wherein  $X_3$  is substituted or unsubstituted furyl or thienyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

80. A composition for oral administration comprising the taxane of claim 34 and at least one pharmaceutically acceptable carrier.

81. A composition for oral administration comprising the taxane of claim 38 and at least one pharmaceutically acceptable carrier.

82. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

83. The method of claim 82 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl or  $C_2 - C_8$  alkynyl.

84. The method of claim 83 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

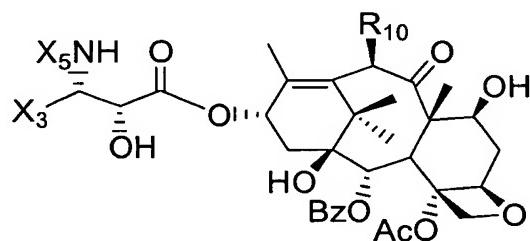
85. The method of claim 83 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

86. The method of claim 83 wherein  $X_3$  is substituted or unsubstituted furyl or thienyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

87. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 34 and at least one pharmaceutically acceptable carrier.

88. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 38 and at least one pharmaceutically acceptable carrier.

89. A taxane having the formula



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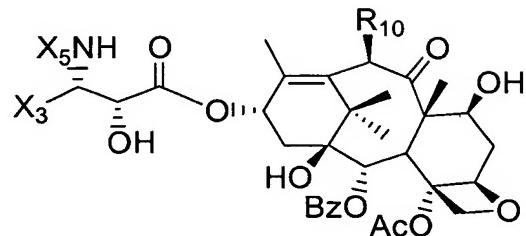
wherein

$R_{10}$  is acetoxyacetoxy or methoxyacetoxy;

$X_3$  is 2-furyl;

$X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-amyl; and Ac is acetyl.

**90. A taxane having the formula**



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wherein

$R_{10}$  is methoxyacetoxy or phenoxyacetoxy;

$X_3$  is 2-furyl;

$X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is trans-propenyl; and

Ac is acetyl.